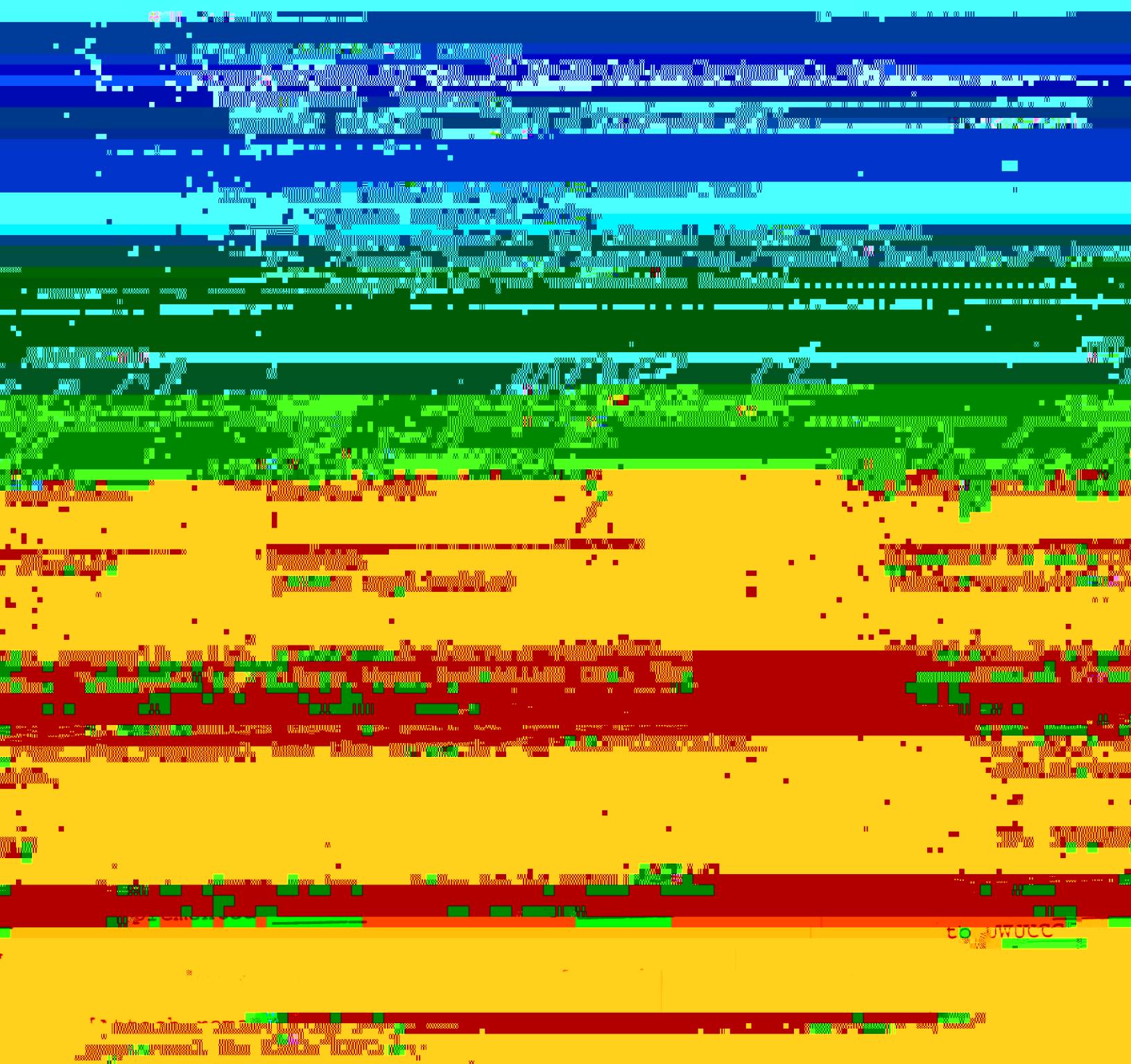


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LIBERAL STUDIES COURSE APPROVAL FORM

About this form: Use this form only if you wish to have a course included for Liberal Studies

Liberal Studies Form -- 2

PART II. WHICH LIBERAL STUDIES GOALS WILL YOUR COURSE MEET? Check all that apply and attach an explanation.

All Liberal Studies courses must contribute to at least one of these areas: most will

[redacted] not mean the same. As you check them off, please indicate whether you consider

Liberal Studies Form -- 3

**PART III. DOES YOUR COURSE MEET THE GENERAL CRITERIA FOR
LIBERAL STUDIES? Please attach answers to these questions.**

[REDACTED]

January 31, 1989

Subject: Responses to Questions Raised by the Islamic Studies Committee

To: Mr. Charles Vassilakos, RE: RE:

Re: Dr. [REDACTED]
Chairperson
Department of Chemistry

In response to your memo dated January 20, 1989 which listed four areas of inquiry, I would like to add one more area of inquiry, namely, the following:

also a request of your College committee:

In general, the concepts which [REDACTED] the foundation for Christianity and Islam were developed in the 11th, 12th, and 13th centuries. We believe significantly.

Very truly yours,

John [REDACTED]

Supporting Materials Block for Major (Chem) 101: Concepts in Chemistry

The freshman chemistry majors that take the following courses are required to take this course as a support course for the first time.

the following:

#1. Manipulation of algebraic-type expressions (simple +, -, ×, ÷, etc.)

1.1. Algebraic Expressions (Simple)

Algebraic expressions are mathematical statements involving variables and constants.

Variables are symbols used to represent unknown values or quantities.

Constants are fixed values that do not change.

Algebraic expressions can be manipulated using various operations such as addition, subtraction, multiplication, and division.

For example, consider the expression $3x + 5$. This expression consists of a constant (3), a variable (x), and another constant (5).

The expression $3x + 5$ represents a linear relationship between the variable x and the constant 5.

Algebraic expressions can be simplified by combining like terms or factoring out common factors.

For example, consider the expression $2x + 3x + 4$. This expression can be simplified by combining the like terms (2x and 3x) to get $5x + 4$.

Algebraic expressions can also be solved for a specific variable by isolating it on one side of the equation.

For example, consider the equation $2x + 3 = 7$. To solve for x, we can subtract 3 from both sides of the equation to get $2x = 4$, and then divide both sides by 2 to get $x = 2$.

Algebraic expressions are fundamental to many areas of science and engineering, including chemistry, physics, and mathematics.

Algebraic expressions are used to describe relationships between variables and constants, and they can be manipulated using various operations to simplify them or solve for specific variables.

Algebraic expressions are also used to model real-world phenomena, such as the motion of objects or the behavior of chemical reactions.

Algebraic expressions are a key component of scientific and technical communication, allowing scientists and engineers to express complex ideas in a concise and precise manner.

Algebraic expressions are a fundamental tool for solving problems in science and engineering, and they are an essential part of any chemist's toolkit.

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The image consists of a dense grid of colored pixels. The colors are primarily shades of blue, green, red, and yellow. The pattern is composed of several horizontal bands of different colors and pixel densities. There are also some vertical bands and some diagonal patterns. The overall effect is abstract and resembles a digital or analog signal captured by a camera.

the lecture portion of these sessions (interactive lectures).

• **100% of the time** the **same** **error** is **repeated** **multiple times** **in a row**

Figure 10. A 3D visualization of the learned latent space. The latent space is a 100-dimensional vector space where each dimension corresponds to a latent variable. The latent variables are represented by colored spheres, and the latent space is visualized as a 3D grid.

As above, the amount of instruction and assignment time is also included.

the primary step is synthesis of the DNA template, which is followed by transcription and translation.

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Figure 10. A 3D visualization of the spatial distribution of the first three principal components of the data set.

LIBERAL STUDIES COURSE APPROVAL

The Chemistry Department submits CH 101-College Chemistry I and CH 102-College Chemistry II as a two-semester natural science sequence, with a laboratory in each course.

PART I - BASIC INFORMATION

- A. We propose this in the category of natural sciences: laboratory course.
- B. We are requesting regular approval for this course.

- B. CH 101-102 discusses concepts. However, whenever appropriate, contributions of minorities and women are acknowledged.
- C. Justification of an exception to the reading requirement.
The primary purpose of CH 101-102 is the understanding and application of scientific concepts and principles. Many of these involve the development of higher level quantitative skills.
- D. The CH 101-102 sequence is an introductory sequence not intended for majors. It is intended for the non-science student. No previous chemistry course is assumed and no prerequisite is required. The basic fundamental principles [REDACTED] of inorganic, organic and biochemistry are presented with the [REDACTED]

Liberal Studies Form -- 4

- E. The Liberal Studies Criteria indicate six ways in which all courses should contribute to students' abilities. To which of the six will your course contribute? Check all that apply and attach an explanation.

The basic fundamental principles and concepts of inorganic chemistry are developed

from the standpoint of atomic and molecular structure with illustrative examples

PU 100 0-11-00 Chemistry II

3r-21-4sh

Reaction mechanism of ammonia and bischromic acid

COURSE SYLLABUS
CH 101
Inorganic Chemistry

The Science of Chemistry. 2 lectures
Introduction; the scientific approach.

Methods of Measurement. 3 lectures
British system; metric system; conversions from metric to British system; mass and weight; density; specific gravity; temperature; significant figures.

Fundamental Concepts of Chemistry. 3 lectures
~~Definition of matter, elements and mixtures, states of matter~~

matter; physical and chemical properties; physical and chemical changes; chemical energy; important energy transformations; conservation of energy and matter.

The Structure of Matter. 3 lectures
Law of Definite Proportions; Law of Multiple Proportions; atomic weights; subatomic particles; emptiness of matter; isotopes; mass numbers and atomic weights.

The Elements and the Periodic Table. 6 lectures
~~Classification of the elements~~

COURSE SYLLABUS
CH 102
Organic Chemistry and Biochemistry

The Nature of Organic Compounds. 3 lectures

Early experiments; vital force and synthetic compounds; isomers; importance of structure; carbon bond angles; rotation on carbon bonds; writing structural formulas; ring compounds.

systematic names; general physical and chemical properties; combustion;

The Chemistry of Lipids.

3 lectures

Structure and hydrolysis of fats: fatty acid constituents: fats and oils.

College Chemistry - CH 101

Laboratory Investigations

1. Density and Specific Gravity
2. Investigating Chemical and Physical Properties
3. Law of Definite Composition

1 Atoms Compounds and Chemical Reactions

5. Principles of Combustion
6. Study of Commercial Soap Products
7. The Activity of Metals
8. The Analysis of Water
9. Solutions and Colloids
10. Titration and Determination of the % Acetic Acid in Vinegar
11. Weights of Equal Volume of Gases

College Chemistry - CH 102

Laboratory Investigations

1. Test for the Detection of the Common Element Present in Organic Compounds

~~Identification of Organic Compounds Using Boiling and Melting Points~~



3. Hydrocarbons - Preparation and Properties
 4. Paper Chromatography
 5. Molecular Models - Structural Formulas and Isomerism
 6. Alcohols and Their Properties
 7. The Physical and Chemical Properties of Organic Acids
- 
- 

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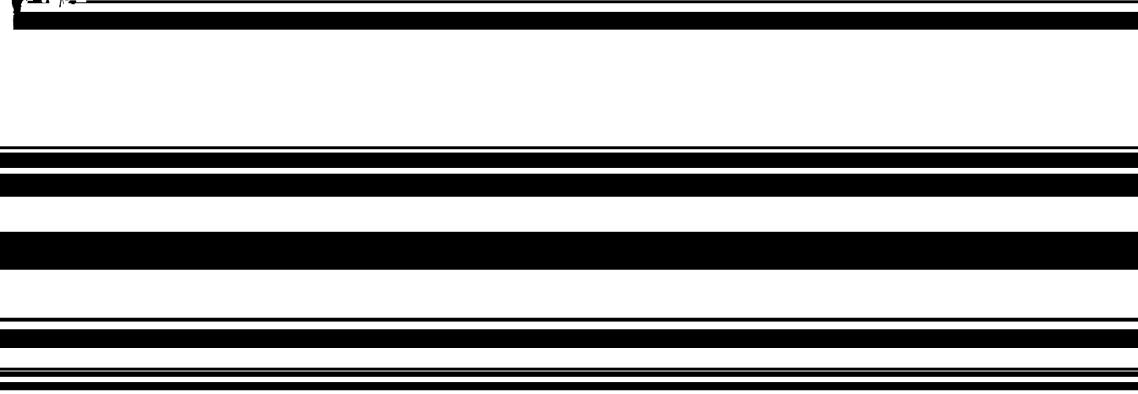
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